differ. With 100% heat detection, accuracy pregnancy examinations might not be needed at all. As heat detection accuracy drops, there is a longer delay from a false-positive diagnosis or abortion to discovery that the cow was nonpregnant; this delay would increase the likelihood that culling would occur.

Most, if not all, statements about how early to examine cows for pregnancy are based on opinion rather than analysis; many were first made before prostaglandin treatments were available and might not still be true (if they ever were). Ours is one of the first studies to look at the subject in a detailed way. It may well be that the answer would differ for small herds under other management conditions; that will require further study.

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Holistic veterinary medicine questions

Dear Sir:

I was moved to write by Dr. P. McCutcheon's article, Holistic Veterinary Medicine: A Small Animal Practitioner's Viewpoint, (Can Vet J 1989; 30: 393-395). While I realize that "Commentary" articles are not held to the same standard as your scientific articles, I was nonetheless disturbed to find such an article in an otherwise reputable journal.

The author states that "the holistic approach is primarily interested in the body's response or lack of response to an insult." How does this differ from so-called "conventional" medicine? Is there any competent practitioner presented with a patient showing clinical signs who does *not* examine the entire animal, taking into account intercurrent disease, impaired immune response, inadequate nutrition, and so on? Dr. McCutcheon's contention that "the conventional practitioner generally imposes medication to nullify clinical signs," with its implication that we treat empirically to hide the disease process, does the practice of veterinary medicine a great disservice. Treatment is always aimed at identifying causes of disease, including predisposing factors, and restoring the animal to normality.

What are we offered instead? We are advised that the holistic practitioner attempts to "provide the body with an optimal nutritional status," as if this were a startling new idea instead of something routinely dealt with in the literature (1,2). How "orthomolecular medicine" differs from simple nutrition is not made clear, unless it is by an emphasis on oversupplementation with trace compounds of dubious value.

It is distressing to see a veterinarian touting homeopathy, the quack therapy which, two centuries after its invention by Samuel Hahnemann in the late 1700's, is still (3) trying to substantiate its fundamental tenet — the contention that the potency of therapeutic agents increases with increasing dilution, even beyond the point where not a single molecule of the original compound exists in the solution, and the practitioner is administering pure diluent (4). His contention that these solutions of distilled water are "regulated according to strict pharmacological principles" is simply wrong (5,6).

In support of acupuncture, we are told that the body's activity is modulated by "bioenergetic fields" which flow along "electromagnetic energy tracts." These are presumably different from the electrochemical energy tracks that we call nerves, although it is strange that these meridians are not described in Miller (7).

Finally, we are told that "illness creates body imbalances," surely one of the most redundant statements ever to grace these pages. Then, however, we are told that these imbalances take the form of misalignments of the spine, and that by "physical adjustment" we can "bring the body into harmony." Contrary to Dr. McCutcheon's definition of holistic medicine, chiropractic is noteworthy for its tendency to treat symptoms (lumbar muscle pain) rather than causes, as evidenced by the large amount of repeat business that chiropractors generate. In fact, in concentrating on a single cause (spinal "subluxation"), and a spurious one at that, chiropractic is the very antithesis of the holistic approach that Dr. McCutcheon claims to favor.

What, then, are the distinctive features of the therapies that he advocates? Most obvious is the lack of scientific evidence supporting their efficacy. Despite Dr. McCutcheon's contention that "holistic medical approaches work — extremely well!", it is evident that these treatments fail to produce reproducible, clinically verifiable results, and only give the appearance of working when used on chronic conditions which undergo random transient improvement and relapse. Where are the double-blind case-control studies that

we expect to see when new medications are introduced? Where are the research reports elucidating mechanisms of action? What he is promoting is not alternative medicine, but bad medicine.

What may we expect to see next in this journal? Veterinary phrenology for behavioral problems in the dog? The casting of horoscopes to determine optimum breeding times in dairy cattle? Over the last century, veterinary medicine has moved away from its connection with the quack and the paddler of snake oil to establish itself as a respected science. As Osler insisted, there is only "one medicine"; "alternative medicine" is a null term. Let us therefore continue to insist that veterinary science be based on our firm, expanding knowledge of biochemistry, pathophysiology, and anatomy, and that putative therapies meet standards of efficacy and reproducibility.

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Author's reply

Dear Sir:

As indicated in my article, there are some very basic diagnostic and therapeutic philosophical differences between holistic and conventional medicine. Many of the critics of holistic medicine decry the lack of research and proof of holistic methods. What they expect is research based on methods adhering to conventional medical philosophy. Holistic research is based on criteria adherent to holistic philosophy. An ever-increasing amount of such research is being published but largely ignored by the conventionally oriented literature. Holistic philosophy and research is clinically oriented dwelling on patient response. It is more subjective than the more objectively based research adhered to by conventional standards. This doesn't make it any less valid. Two hundred years of homeopathic literature and thousands of years of Acupuncture documentation provide background material for valid and useful contemporary holistic information being published worldwide. To criticize this based on criteria designed for assessing conventional medicine is unjust.

Dr. Scrimgeour's criticism of the chiropractice philosophy belittles one of the most progressive and functional members of the modern health care team.

Veterinarians have much to learn from the contemporary chiropractor and osteopath in our continuing search to improve our role as animal healers.

I use holistic diagnostic and therapeutic philosophy on 25–30 patients daily against a background of nearly 30 years of clinical practice. Many critics of holistic medicine have never used homeopathic medicine — therapeutic doses of vitamins and minerals — nor have they seen the benefits of acupuncture therapy.

Their criticism is based on a narrow-minded attitude that I believe is stifling progress. To publish material such as my article indicates a welcome maturing and progressiveness within our profession. Thank you for the opportunity of participating.

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Editor's note: Having solicited this article from Dr. McCutcheon, I fully expected some vigorous comment; thoughtful comments from our readers are encouraged. Commentaries and Opinions are published in the CVJ as a current awareness function of the Journal, and I don't expect everyone to agree *with that is happening in veterinary medicine, but that is not to deny that it* is *happening. Certainly, some of the therapies used in holistic medicine and holistic veterinary medicine are open to question, and demand proof of efficacy. They should meet the same rigorous standards as conventional therapies. But before anyone becomes too pious about the superiority of conventional therapy over holistic therapy, they should very carefully examine the scientific underpinnings of conventional therapies. While indeed many of the therapies introduced in the last few years have been subjected to case-control double-blind studies, many (most?) of our older therapies have not. They too were developed empirically, and their precise modes of action were unknown, but they have stood the test of time in the hands of "mainstream" practitioners. Similarly, acupuncture has a very long and respectable history.*

Whether medical pratices are termed conventional, or holistic, or fall under some other rubric, they should all stand up to rigorous scientific investigation. If veterinarians are to be seen as practitioners of a science, they must be critical and demanding of proof, but also open to new ideas. MGM